



Climate change and environmental impacts on maternal and newborn health with focus on Arctic populations

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Abstract:

BACKGROUND: In 2007, the Intergovernmental Panel on Climate Change (IPCC) presented a report on global warming and the impact of human activities on global warming. Later the Lancet commission identified six ways human health could be affected. Among these were not environmental factors which are also believed to be important for human health. In this paper we therefore focus on environmental factors, climate change and the predicted effects on maternal and newborn health. Arctic issues are discussed specifically considering their exposure and sensitivity to long range transported contaminants. **METHODS:** Considering that the different parts of pregnancy are particularly sensitive time periods for the effects of environmental exposure, this review focuses on the impacts on maternal and newborn health. Environmental stressors known to affect human health and how these will change with the predicted climate change are addressed. Air pollution and food security are crucial issues for the pregnant population in a changing climate, especially indoor climate and food security in Arctic areas. **RESULTS:** The total number of environmental factors is today responsible for a large number of the global deaths, especially in young children. Climate change will most likely lead to an increase in this number. Exposure to the different environmental stressors especially air pollution will in most parts of the world increase with climate change, even though some areas might face lower exposure. Populations at risk today are believed to be most heavily affected. As for the persistent organic pollutants a warming climate leads to a remobilisation and a possible increase in food chain exposure in the Arctic and thus increased risk for Arctic populations. This is especially the case for mercury. The perspective for the next generations will be closely connected to the expected temperature changes; changes in housing conditions; changes in exposure patterns; predicted increased exposure to Mercury because of increased emissions and increased biological availability. **CONCLUSIONS:** A number of environmental stressors are predicted to increase with climate change and increasingly affecting human health. Efforts should be put on reducing risk for the next generation, thus global politics and research effort should focus on maternal and newborn health.

Source: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3213927>

Resource Description

Communication:

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

A focus of content

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Communication Audience:

audience to whom the resource is directed

Policymaker, Researcher

Exposure :

weather or climate related pathway by which climate change affects health

Air Pollution, Ecosystem Changes, Temperature

Air Pollution: Ozone, Particulate Matter

Geographic Feature:

resource focuses on specific type of geography

Arctic

Geographic Location:

resource focuses on specific location

Non-United States, United States

Non-United States: Asia, Europe

Asian Region/Country: Other Asian Region

Other Asian Region: Arctic

European Region/Country: European Region

Other European Region: Arctic

Health Impact:

specification of health effect or disease related to climate change exposure

Developmental Effect, Injury

Developmental Effect: Reproductive

Mitigation/Adaptation:

mitigation or adaptation strategy is a focus of resource

Adaptation

Population of Concern: A focus of content

Population of Concern:

populations at particular risk or vulnerability to climate change impacts

Children, Low Socioeconomic Status, Pregnant Women, Racial/Ethnic Subgroup

Other Racial/Ethnic Subgroup: Arctic indigenous populations

Resource Type:

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format or standard characteristic of resource

Review

Timescale: ☒

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment: ☒

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

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